Unit 1: Nature Around Us

Chapter Overview

2 Unit Lessons

1. Searching for Living Things
2. How Do We Observe?
3. Colors and Shapes of Living Things
4. Different Places… Different Living Things
5. Desert Living Things

3 Key Topics

Living Things	Classification of Living Things	Habitats of Living Things	Characteristics of Living Things
Observation Using a Magnifying Lens	Adaptation to the Environment	Colors and Shapes of Living Things	Desert Living Things

4 Learning Focus

- Distinguish between living and non-living things.
- Recognize main characteristics of living things.
- Identify habitats and explain their importance.
- Observe carefully using a magnifying lens and an observation record card.
- Classify living things by color, shape, size, and habitat.
- Explain how living things adapt to their environments.
- Compare life on the Nile River banks with life in the desert.
- Describe examples of desert plants and animals.

5 Key Vocabulary

Living Things: organisms such as plants, animals, and humans.

Habitat: the place where a living thing lives.

Observation: careful looking and recording.

Classification: grouping living things by shared traits.

Adaptation: a change that helps a living thing survive.

D.M.RAZK موقع الدكتور محمد رزق معلم الكيمياء التعليمي

Lesson 1: Searching for Living Things

Nature includes both living things and non-living things.

Living Things

These things are alive.

- Plants
- Animals
- Humans

Non-Living Things

These things are not alive.

- Soil
- Water
- Air

Characteristics of Living Things

1 Nutrition

Living things need food.

2 Respiration

Living things breathe.

3 Growth

Living things grow.

4 Reproduction

Living things produce new living things.

Think | Where might you find a small ant in the schoolyard?

D.M.RAZK موقع الدكتور محمد رزق معلم الكيمياء التعليمي

Lesson 1: Habitats of Living Things

1 Definition

Habitat: the place where a living thing lives and where its basic needs are available.

2 Importance

A habitat provides what living things need to stay alive, such as water, food, and shelter.

3 Where can living things be found?

Near grasses or trees
places that provide food or easy hiding from enemies.

Examples: grasshopper, birds, squirrels, monkeys.

Under stones or in the shade of rocks
wet or cool places away from sunlight.

Examples: lizards, ants, worms, scorpions.

4 Explorer's Steps

1 Predict
Think about where living things might be found.

2 Search
Look carefully in different places for living things.

3 Record
Write or draw what you observe and where you found it.

5 What did the search trip show?

1 Dung Beetle

found in desert and agricultural lands.

2 Pigeon

found among trees and on tall buildings.

3 Scorpion

found under rocks.

4 Spider

found on and under rocks.

5 Lizard

found on rocks or on hot sunny rocks.

D.M.RAZK موقع الدكتور محمد رزق معلم الكيمياء التعليمي

Lesson 2: How Do We Observe?

1 Observation Rules

When we observe living things closely, we focus on three basic things:

Shape

Look at the form and outline.

Color

Notice the different colors.

Size

Compare how big or small it is.

2 Magnifying Lens

A magnifying lens enlarges small objects and helps us see fine details.

3 How to Use a Magnifying Lens

When the object cannot be moved

Hold the lens close to your eye, then move your head and the lens forward and backward until the image is clear.

When the object can be moved

Hold the lens close to your eye, then move the object forward and backward until the image is clear.

Warning

Do not look directly at the Sun through a magnifying lens, because it makes sunlight stronger and can harm the eye.

Wear gloves when observing animals to protect your hand from contamination.

D.M.RAZK موقع الدكتور محمد رزق معلم الكيمياء التعليمي

Lesson 2: Making an Observation Record Card

1 How to Prepare an Observation Record Card

1

Write the topic title first.

2

Write the data: your name and today's date.

3

Record what you observed with a simple drawing and descriptive sentences. Include place, size, shape, and color.

4

Finally, write what you learned or what made you curious.

2 How do scientists draw?

1. Draw with thin, clear lines.

2. Do not shade the drawing.

3. Draw only what you actually see.

3 Sample Observation Card: Dung Beetle

Name:	: _____
Date:	: _____
Length:	About 2 cm
Color:	Dark black
Shape:	Oval in shape
Location:	On the ground near the Nile River
Observation:	It rolls an almost round ball of dung.

D.M.RAZK موقع الدكتور محمد رزق معلم الكيمياء التعليمي

Lesson 3: Colors and Shapes of Living Things

Classification means grouping living things by the traits we observe.

Living things may be similar in some traits such as color, legs, and wings, and different in shape, size, and habitat.

Color | **Shape** | **Size** | **Habitat**

1 Classification by Color

Green Group

green plants.

Colored Group

Brown-colored examples

Grasshopper

Eagle

Spider

Lizard

Egyptian cobra

Many-colored examples

Butterfly

Lotus flower

Colorful flower

2 Classification by Shape

Group with legs only

Spider has 8 legs.
Lizard has 4 legs.

Spider (8 legs)

Lizard (4 legs)

Group with legs and wings

Eagle has 2 legs.
Butterfly has 6 legs.
Grasshopper has 6 legs.

Eagle (2 legs)

Butterfly (6 legs)

Grasshopper (6 legs)

Group with no legs or wings

Snake;
Plants.

Snake (no legs, no wings)

Plants (no legs, no wings)

D.M.RAZK موقع الدكتور محمد رزق معلم الكيمياء التعليمي

Lesson 3: Classification by Size and Habitat

1 Classification by Size

Medium or Large Group

Birds

Squirrel

Lizard

Monkey

Eagle

Snake

Small Group

Ants

Worms

Scorpions

Butterfly

Grasshopper

Spider

2 Habitats of Some Animals

Hoopoe

gardens and agricultural lands.

Cattle Egret

Nile River banks, agricultural lands, and green areas.

Sand Cat

the desert east of the Nile River.

Egyptian Cobra

semi-desert dry regions, grasslands, and open forests.

Dung Beetle

desert, grasslands, and agricultural lands.

Tiger Butterfly

the Nile Delta, valleys, and city gardens.

3 Habitats of Some Plants

Lotus Flower

wet land and swamps on the Nile River banks.

Papyrus Plant

swamps and water edges in the Nile Delta.

Date Palm

deserts, oases, and places near the Nile River.

Acacia Tree

dry desert regions and around oases.

Egyptian Clover

fertile land in the Nile Delta and Upper Egypt.

Bitter Apple Plant

dry desert areas near the Mediterranean Sea.

Note: Bitter apple looks like watermelon and cucumber, but it tastes very bitter and may be poisonous.

D.M.RAZK موقع الدكتور محمد رزق معلم الكيمياء التعليمي

Lesson 4: Different Places... Different Living Things

Different habitats contain different plants and animals because each habitat provides different conditions.

Habitat is the suitable place where a living thing lives and finds its basic needs.

Comparing Two Habitats

	Nile River Banks	Desert
Environmental features	• Abundant water • Moist clay soil	• Very little water • Dry sandy soil
Plants	Papyrus, lotus flower, loofah, orange.	Acacia tree, bitter apple.
Animals	Frog, bee, water bird such as the Egyptian goose.	Egyptian sand lizard, jerboa, fennec fox.

Adaptation

Adaptation is a change in body parts or behavior that helps a living thing survive in its habitat.

Why can't a frog live in the desert?

Because it needs plenty of water and moist soil and cannot adapt to the desert.

Desert plant adaptation

- Very small leaves (spines) reduce water loss.
- Deep roots growing underground help the plant reach water.

A change in color or shape may also be an adaptation that helps a living thing remain in its habitat.

D.M.RAZK موقع الدكتور محمد رزق معلم الكيمياء التعليمي

Lesson 5: Desert Living Things

Living things in the desert face harsh conditions such as high temperature and scarcity of water.

How do living things adapt in the desert?

Physical Characteristics

1 Fennec Fox

Very large ears help cool the body because extra heat leaves the body.

Thick fur on the soles of the feet protects the feet from hot sand while walking.

2 Jerboa

Long hind legs help it jump quickly like a kangaroo and reduce the time its feet touch the hot ground.

Ways of Living

1 Activity at night

Many animals become active at night when the temperature decreases.

2 Hiding in burrows during the day

Animals hide in cool underground burrows during the day to stay safe from the heat.

Remember!

Desert living things have special features and habits that help them survive in hot and dry places.

D.M.RAZK موقع الدكتور محمد رزق معلم الكيمياء التعليمي

Unit Review: Habitats and Adaptation

1 Key Terms

Living Thing
a plant, animal, or human.

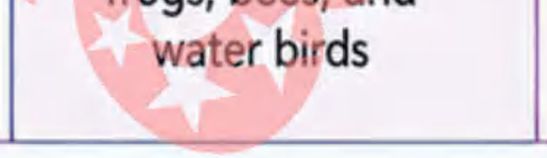
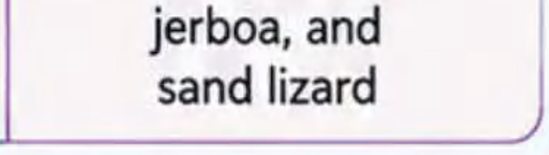
Habitat
the place where a living thing lives.

Observation
careful noticing and recording of what is seen.

Classification
grouping living things by shared traits.

Adaptation
a change in body parts or behavior that helps survival.

2 Nile River Banks vs Desert

	Nile River Banks	Desert
		
Water	abundant water	very little water
Soil	moist soil	dry sandy soil
Plants	plants such as lotus and papyrus	plants such as acacia and bitter apple
Animals	animals such as frogs, bees, and water birds	animals such as the fennec fox, jerboa, and sand lizard

3 Desert Living Things Recap

Fennec fox
large ears cool the body; fur on the soles protects the feet.

Jerboa
long hind legs help it jump quickly.

Camel
drinks a large amount of water at one time and stores it in its body.

Some desert animals rarely drink water and depend on the water in their food.

4 Enrichment Corner

Dung Beetle: Cleaner of the Desert

- It gathers and buries dung in the soil.
- This helps clean the environment.
- It reduces the spread of diseases caused by dung left on the ground.

D.M.RAZK موقع الدكتور محمد رزق معلم الكيمياء التعليمي

موقع الدكتور محمد رزق التعليمي

امسح الباركود بالموبيل لتثبيت التطبيق وتحميل كل الملازم مجانا وبسرعه

MR

حمل التطبيق الأن

GET IT ON Google Play

ملازم ابتدائي | ملازم اعدادي | ملازم ثانـــوي | كورسات ونتائج امتحانات

موقع الدكتور محمد رزق
Dr.MoRizK